09/463598 (#90225)430 Rec'd T/PTO

CKAPTER 11

Preliminary Classification:

165

Proposed Class:

104.19

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent

applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application

papers, for example 'Proposed Class 2, subclass 129.' " M.P.E.P., § 601, 7th ed.

transmittal letter TO THE UNITED STATES ELECTED OFFICE (EQ/US)

(ENTRY INTO U.S. NATIONAL PHASE UNDER CHAPTER III)

INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED 22 JANUARY 1999 22 JANUARY 1998 PCT/SE99/00086 TITLE OF INVENTION FROST RESISTANT HEATING/COOLING FLUID APPLICANT(S) STARZMANN, Martin Box PCT Assistant Commissioner for Patents Washington D.C. 20231 ATTENTION: EO/US

> CERTIFICATION UNDER 37 C.F.R. () 1.100 (Express Mail label number is mandatory.) (Express Mail cartification is optional.)

I hereby certify that this Transmittal Letter and the papers indicated as being transmitted therewith is being denosited with the Linited States Postal Service on this date $1/\frac{24}{3000}$ in an envelope as deposited with the United States Postal Service on this date $\frac{1/27}{2000}$ (Express Mail Post Office to Addressee" Mailing Label Number _, in an envelope as addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Christine A. Kotran

(type or print name of person mailing pager)

Signature of person mailing paper

Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be WARNING: used to obtain a date of mailing or transmission for this correspondence.

°WARNING: Each paper or fee filed by "Express Mail" ഞയറി have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will mot be granted on patition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 1 of 8)





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- NOTE: To avoid abandonment of the application, the applicant shall furnish to the USPTO, not later than 20 months from the priority date: (1) a copy of the international application, unless it has been previously communicated by the international Bureau or unless it was originally filed in the USPTO; and (2) the basic national fee (see 37 C.F.R. § 1.492(a)). The 30-month time limit may not be extended. 37 C.F.R. § 1.495.
- WARNING: Where the items are those which can be submitted to complete the entry of the international application into the national phase are subsequent to 30 months from the priority date the application is still considered to be in the international state and if mailing procedures are utilized to obtain a date the express mail procedure of 37 C.F.R. § 1.10 must be used (since international application papers are not covered by an ordinary certificate of mailing—See 37 C.F.R. § 1.8.
- NOTE: Documents and feas must be clearly identified as a submission to enter the national state under 35 U.S.C. § 371 otherwise the submission will be considered as being made under 35 U.S.C. § 111. 37 C.F.R. § 1.494(f).
- Applicant herewith submits to the United States Elected Office (EO/US) the following items under 35 U.S.C. § 371:
 - a. XXXX This express request to immediately begin national examination procedures (35 U.S.C. § 371(f)).
 - b. XXXX The U.S. National Fee (35 U.S.C. § 371(c)(1)) and other fees (37 C.F.R. § 1.492) as indicated below:

2. Fees

AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))	CLAIMS FEE	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULA- TIONS
MULTIPLE DEPENDENT CLAIM(8) (if applicable) + \$260.00 MULTIPLE DEPENDENT CLAIM(8) (if applicable) + \$260.00 BASIC FEE** U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))	X X					
MULTIPLE DEPENDENT CLAIM(8) (if applicable) + \$260.00 BASIC FEE** U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))			· 12 -20=		× \$18.00=	\$
MULTIPLE DEPENDENT CLAIM(8) (if applicable) + \$260.00 BASIC FEE** U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))	t.					
BASIC FEE** U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousnese) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))			1 -3=		× \$78.00=	
AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))		MULTIPLE DEP	ENDENT CLAIM(S) (H	applicable)	+ \$260.00	
SHALL Reduction by 1/2 for filing by small entity, if applicable. Affidavit must be filed also. (note 37 C.F.R. § 1.9, 1.27, 1.28) (YES) Total National Fee Total National Fee 420.00 Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET".	AUTHORITY Where an international preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4))					
Reduction by 1/2 for filing by small entity, if applicable. Affidavit must be filed also. (note 37 C.F.R. § 1.9, 1.27, 1.28) (YES) - 420.00 Total National Fee \$ 420.00 Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET". (YES) 40.00		ti	ne Japanese Patent (Office (37 C.F.R.		840.00
must be filed also. (note 37 C.F.R. § 1.9, 1.27, 1.28) (YES) — 420.00 Subtotal 420.00 Total National Fee \$ 420.00 Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET". (YES) 40.00				Total of abo	ove Calculations	= 840.00
Total National Fee \$ 420.00 Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET". (YES) 40.00	SMALL ENTITY		- 420.00			
Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET". (YES) 40.00					Subtotal	420.00
C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET". (YES) 40.00				То	tal National Fee	\$ 420.00
		C.F.R. § 1.21(h))				
		COVER SHEET"				



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Coo State	ned Preliminary Amendment Reducing the Number of Claims.
i.	$XXXX$ A check in the amount of $\frac{$460.00}{}$ to cover the above fees is enclosed.
II.	☐ Please charge Account No in the amount of \$ A duplicate copy of this sheet is enclosed.
₩arhing:	"To avoid abandonment of the application the applicant shall furnish to the United States Patent and Tradamark Office not later than the expiration of 30 months from the priority date: °°° (2) the basic national fee (see § 1.492(a)). The 30-month time limit may not be extended." 37 C.F.R, § 1.495(b).
	If the translation of the international application and/or the oath or declaration have not been submitted by the applicant within thirty (30) months from the priority date, such requirements may be met within a time period set by the Office. 37 C.F.R. § 1.495(b)(2). The payment of the surcharge set forth in § 1.492(s) is required as a condition for accepting the oath or declaration later than thirty (30) months after the priority date. The payment of the processing is a set forth in § 1.492(f) is required for acceptance of an English translation later than thirty (30) months after the priority date. Fallure to comply with these requirements will result in abandonment of the application. The provisions of § 1.136 apply to the period which is set. Notice of Jan. 3, 1993, 1147 O.G. 29 to 40.
3° XXXXXX ♥	copy of the International application as filed (35 U.S.C. § 371(c)(2)):
applie "The accor comn dasig appli notics	ion 1.495 (b) was amended to require that the basic national fee and a copy of the international cation must be filed with the Office by 30 months from the priority date to avoid abandonment. International Bureau normally provides the copy of the international application to the Office in redance with PCT Article 20. At the same time, the International Bureau notifies applicant of the munication to the Office. In accordance with PCT Rule 47.1, that notice shall be accepted by all instead offices as conclusive evidence that the communication has duly taken place. Thus, if the cant desires to enter the national stage, the applicant normally need only check to be sure the effort from the International Bureau has been received and then pay the basic national fee by 30 months the priority date." Notice of Jan. 7, 1993, 1147 O.G. 29 to 40, at 35-36. See item 14c below.
8.	☐ is transmitted herewith.
b.	. Is not required, as the application was filed with the United Stat s
	Receiving Office.
C	Receiving Office. xxxxxxhas been transmitted
, Ca	
C	xxxxxxhas been transmitted I. xxxxx by the International Bureau. 29 July
ą, XXIX A	XXXXxhas been transmitted I. XXXX by the International Bureau. Date of mailing of the application (from form PCT/1B/308): 1999.
ą, XXIX A	I. XXXX by the International Bureau. Date of mailing of the application (from form PCT/1B/308): 1999 ii. Dy applicant on
ą. X∑X A (3 a.	I. XXXX by the International Bureau. Date of mailing of the application (from form PCT/1B/308): 1999 ii. Dy applicant on
ą. X∑X A (3 a.	I. XX by the International Bureau. Date of mailing of the application (from form PCT/1B/308): 1999 ii. by applicant on





5. XX	€⊠κ			dments to the claims of the international application (S.C. § 371(c)(3)):	under PCT Article 19
NOTE	er ck su er	nd co. riority o so v ubmit n ame	ntinu data will n that endn	of January 7, 1993 points out that 37 C.F.R. § 1.495(a) was amer uing practice that PCT Article 19 amendments must be submitted to and this deadline may not be extended. The Notice further ad not result in loss of the subject matter of the PCT Article 19 amet subject matter in a preliminary amendment filed under section 1.1 ment under section 1.121 is preferable since grammatical or 1147 O.G. 29-40, at 36.	d by 30 months from the vises that: "The failure to endments. Applicant may .121. In many cases, filing
•		8.		are transmitted herewith.	
		b.] have been transmitted	
			i.	 by the International Bureau. Date of mailing of the amendment (from form PCT/) 	1B/308):
			II.	☐ by applicant on (Date).	
		C.X	X X X	have not been transmitted as	
			j. ³	XXIII applicant chose not to make amendments up Date of mailing of Search Report (from form PCT)	n der PCT Article 19. 7 /SA/210.) : <u>06 May 1</u> 99
			ii.	the time limit for the submission of amendments. The amendments or a statement that amendments will be transmitted before the expiration of the tipe PCT Rule 46.1.	have not been made
6. X	x x			nslation of the amendments to the claims under PC .S.C. § 371(c)(3)):	T Article 19
		a.] is transmitted herewith.	,
		b.] is not required as the amendments were made in t	he English language.
		c.X	X X X	A has not been transmitted for reasons indicated at	point 5(c) above.
7. X	х кж х	K A (copy	by of the international examination report (PCT/IPEA	/409)
٠,		Х	X X X	is transmitted herewith.	
	•] is not required as the application was filed with the large office.	United States Receiv-
8.		An	nex	x(es) to the international preliminary examination rep	oort (None)
		a .		is/are transmitted herewith.	
		b.	R	☐ is/are not required as the application was filed w Receiving Office.	ith the United States
8.		A	tran	nslation of the annexes to the international prelimina	ry examination report
		a.		is transmitted herewith.	(None)
		b.		is not required as the annexes are in the English	language.





:			
10. _X √		oath or d claration U.S.C. § 115	of the inventor (35 U.S.C. § 371(c)(4)) complying with
	a.	☐ was previously	submitted by applicant on (Date).
	b. x	x ⊠xis submitted he	rewith, and such oath or declaration
		i. XXXX is attached	to the application.
)		19 that were t	ne application and any amendments under PCT Article ransmitted as stated in points 3(b) or 3(c) and 5(b); and by were reviewed by the inventor as required by 70.
	C.	☐ will follow.	
II. Other	docu	iment(s) or information	on included:
11. xx		International Search T Article 17(2)(a):	Report (PCT/ISA/210) or Declaration under
	a. x	x is transmitted h	erewith. (Attached to published appln. WO 99/37733
	b.		mitted by the International Bureau. om form PCT/IB/308):
	C.	☐ is not required, international Searc	as the application was searched by the United States hing Authority.
	d.	☐ will be transmitt	ted promptly upon request.
	⊖.	☐ has been subm	itted by applicant on (Date).
12xxXX	X An	Information Disclosu	ure Statement under 37 C.F.R. §§ 1.97 and 1.98:
	a.X	XXI is transmitted h	erewith.
		Also transmitte	ed herewith is/are:
	Х	XXX Form PTO-144	9 (PTO/SB/08A and 08B).
	Х	XXX Copies of citat	ions listed.
	b.		ted within THREE MONTHS of the date of submission der 35 U.S.C. § 371(c).
	C.	☐ was previously	submitted by applicant on (Date).
13.xXX	x A n	assignment docume	ent is transmitted herewith for recording.
	A s Ny	eparate 🔲 "COVERING NEW PATENT A	R SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPA-PLICATION" or XXXXFORM PTO 1595 is also attached.
		Assignee:	Aspen Petroleum AB
			Sjoportsgatan 2
			417 64 Goteborg, Sweden

14. _X [Ax Additional documents:
	a.xxxxxxcopy of request (PCT/RO/101)
	b.XXX International Publication No. WO 99/37733
	i. XX Sp cification, claims and drawing
	ii. Front page only
	c.xxx Preliminary amendment (37 C.F.R. § 1.121)
	d _{.XX} Other
	PCT/IB/308; PCT/IV/332; PCT/IPEA/416
15.X	TX The above checked items are being transmitted
	a. XXXxbefore 30 months from any claimed priority date.
	b. after 30 months.
16. [☐ Certain requirements under 35 U.S.C. § 371 were previously submitted by the applicant on, namely:
	authorization to charge additional fees
Warn	ING: Accurately count claims, especially multiple dependant claims, to avoid unexpected high charges if extra claims are authorized.
NOTE:	"A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(e) will also be treated as a constructive patition for an extension of time in any concurrent

raply raquiring a patition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

NOTE: "Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).

XXX The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper and during the entire pendency of this application to Account No. $\frac{08-2441}{}$.

XXXXX 37 C.F.R. § 1.492(a)(1), (2), (3), and (4) (filling fees)

Because failure to pay the national fee within 30 months without extension (37 C.F.R. § 1.495(b)(2)) warning: results in abandonment of the application, it would be best to always check the above box.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 7 of 8)

XXX 37 C.F.R. § 1.492(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.492(d)), it might be best not to authorize the PTO to charge additional claim fees, except possible when dealing with amendments after final action.

XXX 37 C.F.R. § 1.17 (application processing fees)

 37 C.F.R. § 1.18 (Issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying . . . issue fee." From the wording of 37 C.F.R. § 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

x X 37 C.F.R. § 1.492(e) and (f) (surcharge fees for filing the declaration and/or filing an English translation of an International Application later than 30 months after the priority date). (None required.)

Reg. No.: 24,603

Tel. No.: (216) 771-3800

Customer No.: IDONO00367

signature of practitioner

D. Peter Hochberg

(type or print name of practitioner)

D. Peter Hochberg Co., L.P.A.

P.O. Address

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Cleveland, OH 44114-2294